

**CONTINUING EDUCATION COURSE TOPIC GUIDELINES  
FOR WASTEWATER COLLECTION AND TREATMENT OPERATORS**

**Approved March 23, 2009**

*Revised July 21, 2009*

Continuing Education Topics	Approved for Wastewater Collection and Treatment Operators
<b>General</b>	
Basic Computers	X
Basic Electricity for Operators	X
Basic Hydraulics	X
Geographic Info Systems (GIS)	X
Math for Operators	X
Water Chemistry	X
Water Microbiology	X
<b>Safety</b>	
Backhoe Operator	NOT APPROVED
Chlorine Safety	X
Confined Space	X
Electrical Hazards	X
Ergonomics	NOT APPROVED
Excavations, Trenching/Shoring/Competent Person	X
First-Aid/CPR	NOT APPROVED
Hazard Communication/Right-to-Know	X
Lab Safety	X
Lockout/Tagout	X
Personal Protective Equipment/Respiratory Protection	X
Safe Handling of Materials	X
Spill Response	X
Traffic Control/Work Zone Safety	NOT APPROVED
Water & Blood-borne Pathogens	X
<b>O &amp; M Equipment</b>	
Aeration Equipment	X
Belt Filter Presses	X
Blowers and Compressors	X
Booster Pumping Stations	X
Centrifuges	X
Chemical Storage/Feed Systems	X
Cleaning Equipment such as Jetting and Vac Trucks	X
Cross Connection/Backflow Prevention Equipment	X
Electrical Controls/SCADA	X
Flow Monitoring & Level Sensing Equipment	X
Generators/Switchgear	X
Hydraulic and Pneumatic Equipment	NOT APPROVED
Inspection Equipment such as CCTV, Smoke Testing, etc.	X
Instrumentation	X
Leak Detection	X
Cathodic Protection	X
Mechanical Process Equipment	X
Mixers	X
Motor Control Centers	X
Motors/Engines/Drives	X
Pipe, Valves, Fittings	X
Programmable Logic Controllers	X
Pumping/Lift Stations	X
Pumps	X
Stand-by/Aux/Support Equipment	X
Variable Freq Drives	X
<b>WW Treatment Process/Quality Control</b>	

Advanced WW Treatment - Nutrient Removal	X
Attached Growth/Fixed Film Systems (Trickling Filters, RBCs)	X
Biosolids Disposal/Land Application/Incineration	X
Chemical Storage & Handling	X
Chemical Treatment/Odor Control	X
Coupled Systems: TF/AS, TF/SC	X
Disinfection/Deactivation	X
Effluent Discharge & Reuse	X
Fats, Oil and Grease Removal	X
Grit Removal	X
Influent/Sidestream Characterization	X
Membrane Process: Membrane Bioreactors & Effluent Filtration	X
Natural Systems - Lagoons, Constructed Wetlands, Etc.	X
Odor Control	X
Process Control Techniques	X
Process Optimization	X
Sampling/Analysis	X
Sand/Media Filters	X
Screens/Grinders/Comminutors	X
Sedimentation/Clarification	X
Septage Receiving & Treatment	X
Sludge Conditioning, Dewatering, Stabilization, & Reduction	X
Suspended Growth Systems (Activated Sludge)	X
<b>WW Collection Process</b>	
Cleaning/Flushing & Pigging	X
Corrosion Control	X
Flow Measurement: Open Channel & Pipe	X
Infiltration/Inflow/Exfiltration	X
Inspection & Condition Assessment	X
Manhole Rehabilitation	X
Odor Control	X
Overflows & Bypass Control	X
Pumping/Lift Stations	X
Sampling & Lab Analysis	X
Service Lines & Connections	X
Sources & Characteristics	X
Stormwater Separation	X
Trenchless Technologies for Pipe Rehabilitation	X
<b>Administration/Management</b>	
Capacity, Management, O & M for Separate Systems	X
Compliance	X
Construction Inspection/Documentation/Design Build	X
Community/Public Relations/Compliant Response	X
Design Manual Development	X
Emergency Response Planning & Security Training	X
Energy Efficiency/Energy Conservation at W/WW Facilities	X
Federal & State Financing Programs	NOT APPROVED
Finance, Budget, Rate Setting	NOT APPROVED
FOG Management Programs	X
Health & Safety Program Implementation	NOT APPROVED
Industrial Pretreatment Programs/Source Control	X
Legal Issues for W/WW Utilities	NOT APPROVED
Records & Reports: Monitoring/Reporting/Records Management	X
Nine Minimum Controls for Combined Systems	X
Planning/Organization/Project Management	X
Plant Optimization: Continue Process Improvement/Sustainability/Asset Management/Statistical Process Control Techniques	X
Private Property Issues/Service Laterals	X
Problem Solving/Troubleshooting/Decision Making	X

Regs (CWA/SDWA, State & Local such as Operator Certification Requirements), NPDES Permit Requirements	X
Right-of-Way Management/Maintenance	NOT APPROVED
Risk Management	NOT APPROVED
Sanitary Surveys/Plant/System Inspections	X
Sewer Use Ordinances & Moratoriums	X
SSO/CSO Reduction/Elimination (SSO/CSO)	X
Supervision & Personnel Management/Communication Skills	X
Surface Water/Groundwater/Watershed Protection	X
TMDLs	X
Training/Teaching Skills	NOT APPROVED
Wet Weather Control Procedures	X

